

**REMARKS**

This Amendment and Response to the non-final Office Action is being submitted in response to the non-final Office Action mailed December 14, 2005. Claims 1-17, 19-23, and 33-36 are pending in the Application.

Claims 1-7, 9-17, 19-23, and 33-36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. (“Ueno”, Pub. No.: US2002/0024535), Brede et al. (“Brede”, U.S. Pat. No. 6,603,822), and Horri (“Hori”, U.S. Pat. No. 6,496,209). Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno, Brede, Horii, and Langfahl Jr. (“Langfahl”, U.S. Pat. No. 6,031,528).

In response to these rejections, Claim 1 has been amended to further clarify the subject matter which Applicants regard as the invention, without prejudice or disclaimer to continued examination on the merits. This amendment is fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendment and the arguments presented herein, reconsideration of the Application is respectfully requested.

**Rejection of Claims 1-7, 9-17, 19-23, and 33-36 under 35 U.S.C. 103(a) –****Ueno et al., Brede et al., and Horri**

Claims 1-7, 9-17, 19-23, and 33-36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. (“Ueno”, Pub. No.: US2002/0024535), Brede et al. (“Brede”, U.S. Pat. No. 6,603,822), and Horri (“Horri”, U.S. Pat. No. 6,496,209). Claim 1 is an independent method claim and Claims 2-7, 9-17, 19-23, and 33-36 are dependent method claims, depending from Claim 1 or an intervening dependent claim.

While Examiner has rejected Claims 1-7, 9-17, 19-23, and 33-36 as being unpatentable over Ueno et al., Brede et al., and Horri, Applicants respectfully submit that:

1. Horri does not teach or suggest a graphical image comprising labels for the bands and channels at each node.
2. Horri does not teach or suggest a channel map graphically illustrating at least one band and at least one channel of the at least one band.
3. Brede et al. do not teach or suggest channel data relating to optical wavelength division multiplexed channels grouped into bands.
4. Neither Ueno et al. nor Brede et al. teach or suggest a network comprising nodes configured in a ring or mesh topology.

Applicants have amended independent Claim 1 so as to incorporate some of the limitations discussed herein. Specifically, independent Claim 1 has been amended to recite:

1. A method for generating and displaying a channel map for a network, the method comprising the steps of:  
retrieving channel data for a plurality of nodes in the network;  
generating a graphical image of the channel map graphically illustrating at least one band and at least one channel of the at least one band and representing a first node and a second node of the plurality of nodes in the network from the retrieved channel data, the graphical image showing a relationship of a band and channel in the first node to a band and channel in the second node; and  
displaying the graphical image of the channel map,

*wherein the graphical image comprises labels for the bands and channels at each node,*

wherein the channel data include information regarding bands and channels utilized in the network, and

wherein the network utilizes a plurality of bands and each band has a plurality of channels.

Horri does not teach or suggest a graphical image comprising labels for the bands and channels at each node.

Horri teaches an “apparatus which enables a user to easily recognize real-time change in status by using change in the shape and the color of a plurality of icons.”<sup>1</sup> Horri teaches icons and link lines, and changing the color of each responsive to an abnormal condition.<sup>2</sup>

Applicants submit that Horri does not teach or suggest a graphical image comprising labels for the bands and channels at each node. Applicants have amended independent Claim 1 to add the limitation: *wherein the graphical image comprises labels for the bands and channels at each node.*

Horri does not teach or suggest a channel map graphically illustrating at least one band and at least one channel of the at least one band.

Examiner states that “Horri teaches generating a graphical image of the channel map graphically illustrating at least one band and at least one channel of the at least one band, and the graphical image showing a relationship of a band and channel in the first node to a band and channel in the second node.”<sup>3</sup> To support this, Examiner points to col. 2, lines 33-39; col. 6, lines 33-36; and col. 7, lines 21-30, and line 42 of Horri. Applicants respectfully disagree.

Horri teaches “link-line displaying means for displaying link lines indicating the connection between icons.”<sup>4</sup> Horri further teaches a rack that “accommodates one or more units.

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<sup>1</sup> See U.S. Pat. No. 6,496,209, Col. 2, lines 8-10

<sup>2</sup> See U.S. Pat. No. 6,496,209, Fig. 4

<sup>3</sup> See Office Action mailed December 14, 2005, page 3.

<sup>4</sup> See U.S. Pat. No. 6,496,209, Col. 2, lines 32-34.

Each unit accommodates one or more circuit substrates (hereinafter simply called "substrates").<sup>5</sup> Finally, Horri teaches a rack view with a plurality of units displayed in the rack with link lines showing connections, and the color of the icons displaying the state and the thickness of the link line displaying the state.<sup>6</sup>

Horri does not teach or suggest a band and at least one channel of the band. Applicants respectfully submit that Horri teaches only channels between each unit and does not teach or suggest further into the grouping of the channels into bands.

Brede et al. do not teach or suggest channel data relating to optical wavelength division multiplexed channels grouped into bands.

Brede et al. teach a method of communicating errors to a head end in a hybrid fiber-coaxial (HFC) distribution network.<sup>7</sup> Examiner states "Brede teaches the channel data include information regarding bands and channels in the network, wherein the network utilizes a plurality of bands and each band has a plurality of channels."<sup>8</sup> Brede et al. teach channels modulated using orthogonal frequency division multiplexing (OFDM) with guard bands between each channel for filter selectivity.<sup>9</sup>

Brede et al. do not teach or suggest a channel which is a wavelength division multiplexed (WDM) optical signal in the 1530 nm to 1560 nm wavelength range, as does the present invention.

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<sup>5</sup> See U.S. Pat. No. 6,496,209, Col. 6, lines 34-36.

<sup>6</sup> See U.S. Pat. No. 6,496,209, Col. 7, lines 21-30.

<sup>7</sup> See U.S. Pat. No. 6,603,822, Col. 4, lines 64-66 and Col. 18, line 18.

<sup>8</sup> See Office Action mailed December 14, 2005, page 3.

<sup>9</sup> See U.S. Pat. No. 6,603,822, Col. 40, lines 66-67 and Col. 41, lines 1-15.

Neither Ueno et al. nor Brede et al. teach or suggest a network comprising nodes configured in a ring or mesh topology.

Ueno et al. teach “a network management equipment provided to a network system including a plurality of ring networks with a plurality of nodes connected to each other in the ring form through a communication line.”<sup>10</sup> Ueno et al. teach network management equipment for optical submarine cable systems.<sup>11</sup> Ueno et al. do not teach or suggest a network with nodes configured in a mesh topology. Mesh topologies are not deployed in submarine cable systems due to the long distances and the need to have reliability associated with ring topologies.

Brede et al. teach a multi-point to point HFC network configuration with a head end distributing channels to multiple optical distribution nodes.<sup>12</sup> Brede et al. do not teach or suggest a network with nodes configured in a ring topology, mesh topology, or combinations of ring and mesh topologies, as does the present invention.

In view of the amendments to Claim 1, and the arguments presented herein, Applicants submit that the rejection of Claims 1-7 and 9-17, 19-23, and 33-36 as being unpatentable over Ueno et al., Brede et al., and Horri has been traversed. Therefore, withdrawal of this rejection is respectfully requested.

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<sup>10</sup> See U.S. Pat. App. Pub. No. 2002/0024535, ¶[0015], and Figs. 1 and 3.

<sup>11</sup> See U.S. Pat. App. Pub. No. 2002/0024535, ¶[0004],

<sup>12</sup> See U.S. Pat. No. 6,603,822, Col. 18, lines 18-21; Col. 19, line 1; and Fig. 1.

**Rejection of Claim 8 under 35 U.S.C. 103(a) –**  
**Ueno et al., Brede et al., Horri, and Langfahl Jr.**

Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno, Brede, Horii, and Langfahl Jr. (U.S. Pat. No. 6,031,528). Claim 8 is a dependent claim, depending from independent Claim 1.

In view of the amendment to independent Claim 1, and the arguments presented herein, Applicants respectfully submit that the rejection of Claim 8 under 35 U.S.C. 103(a) as being unpatentable over Ueno, Brede, Horii, and Langfahl Jr. has been traversed. Therefore, withdrawal of this rejection is respectfully requested.

**CONCLUSION**

Applicants would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

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Christopher L. Bernard  
Attorney for Applicants  
Registration No.: 48,234

**DOUGHERTY | CLEMENTS**  
1901 Roxborough Road, Suite 300  
Charlotte, North Carolina 28211 USA  
Telephone: 704.366.6642  
Facsimile: 704.366.9744  
[cbernard@worldpatents.com](mailto:cbernard@worldpatents.com)